

IN THE CLAIMS:

Please REPLACE claims, in accordance with the following:

6. (AS TWICE AMENDED HEREIN) A method of manufacturing a gas discharge panel as recited in claim 1, wherein:

the forming of the sealant further comprising forming a plurality of said frame-shaped sealants on said one of said substrates; and

C1 carrying out the lowering, solidifying, removing and filling for said plurality of frame-shaped sealants and respective plurality of discharge spaces formed within said frame-shaped sealants.

7. (AS TWICE AMENDED HEREIN) A method of manufacturing a gas discharge panel as recited in claim 6, wherein said plurality of discharge spaces are provided with respective through holes in adjacent relationship, so that said exhausting and said discharge gas filling processes are carried out via a pipe connected commonly to each of the respective through holes.

9. (AS TWICE AMENDED HEREIN) A method of manufacturing plural gas discharge panels, each having a respective discharge space, between a pair of substrates, each panel sealed together with a sealant frame, comprising the steps of:

C2 forming a plurality of sealant frames, on a first surface of a first substrate opposing a second substrate and stacking said first substrate onto said second substrate via the plurality of sealant frames, wherein each of the substrates has a plurality of cutting lines defining the plural gas discharge panels, formed with respective sealant frames so as to enclose respective discharge spaces;

lowering an internal pressure of each of the plurality of discharge spaces relatively to a pressure on an exterior of each of the pair of substrates so as to press the pair of the substrates together and to fix a size of the discharge spaces between the pair of the substrates and heating and thereby melting the plurality of sealant frames;

solidifying the plurality of sealant frames, once melted, so as to fix the pair of the substrates and form the plurality of discharge spaces between the pair of substrates;

removing impurities in the discharge spaces;

c2
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filling a discharge gas into the discharge spaces and sealing the discharge spaces; and cutting the pair of the substrates along the cutting lines into a plurality of smaller substrates so as to form a plurality of individual said gas discharge panels.

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11. (AS TWICE AMENDED HEREIN) A method of manufacturing a gas discharge panel comprising a pair of substrates opposed to each other, one of the substrates having a plurality of electrodes on a inner surface thereof so as to produce a discharge with adjacent electrodes and the other of the substrates having on an inner surface thereof fluorescent materials of a plurality of different colors for emitting fluorescences stimulated by the discharges and a plurality of separator walls formed in a predetermined pattern separating said fluorescent materials, comprising :

forming a seal glass layer along a periphery of the other substrate, of a height greater than a height of said separator walls;

positioning the pair of substrates, in opposed relationship and separated by a discharge space of a predetermined interval therebetween, in a vacuum-heating furnace;

exhausting the discharge space between the pair of opposed substrates ; and

heating said seal glass layer until said seal glass layer melts while maintaining the low pressure in the discharge space by said exhausting.

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16. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge panel as recited in claim 15, wherein the sealant frame is formed of a height greater than a height of the separator walls, clips for pinching and affixing the pair of stacked substrates are located so as to press together respective central portions of the substrates within a vicinity of regions where the separator walls are to engage the other substrate, bending the central portions of the substrates in an inward direction toward the discharge space relatively to the peripheries thereof, spaced apart by the sealant frame.

17. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge panel as recited in claim 15, wherein the deforming of the sealant is caused by a force produced in a direction toward the discharge space from an exterior of both of the pair of substrates by maintaining a pressure in the exterior of the pair of substrates higher than a pressure in the discharge space between the substrates.

18. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge panel as recited in claim 15, wherein the height of the discharge space is determined by closing a portion of a conduction path, from the discharge space to the exterior of the pair of the substrates, so as to provide a uniform pressure-difference between a lower pressure in the discharge space between the substrates and a relatively higher pressure on the exterior of the pair of the substrates.

19. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge panel as recited in claim 15, further comprising, while heating the pair of substrates, exhausting gas from the exterior of the pair of the substrates when the sealant reaches a vicinity of a temperature at which degassing becomes active and is ended when the sealant adheres to the substrate.

21 22. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge panel as recited in claim 20, wherein, after the sealant adheres to the substrate, raising the pressure on the exterior of the pair of substrates to a level of a pressure at which a bubble existing in a sealant does not increase in size.

25 23. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge display panel as recited in 15, wherein, in the fourth step, melting the sealant at a temperature below a temperature at which softening of the sealant begins, so as to prevent a bubble in the sealant from increasing in size.

26 24. (AS TWICE AMENDED HEREIN) The method of manufacturing a gas discharge display panel as recited in 15, further comprising connecting a conduction pipe to the through-hole, connecting a seal head, available to exhaust the discharge space, to the conduction pipe after the sealant is solidified and cooled and introducing a discharge gas through the conduction pipe and seal head into the discharge space.